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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT A. DUNSTAN

Appeal 2009-010011
Application 10/644,432
Technology Center 2100

Before ERIC S. FRAHM, JASON V. MORGAN, and BRUCE R. WINSOR,
Administrative Patent Judges.

MORGAN, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

Introduction

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1 – 4 and 6 – 35.¹ We have jurisdiction under 35 U.S.C. § 6(b).

Exemplary Claim

1. In an apparatus, a method of operation comprising:

in response to an AC failure condition of the apparatus, supplying power from a backup power source to the apparatus for at least a time period;

additionally initiating a suspend process to place the apparatus in a suspended to memory state, to be sustained by the supplied backup power; and

intervening and preserving a persistent copy of an operational state of the apparatus, before completing the suspend process and placing the apparatus in the suspended to memory state, sustained by the supplied backup power.

(App. Br. 20; Claims App'x).

Rejections and Appellant's Contentions

Appellant contends that the Examiner erred in rejecting claims 1, 8, 14, 21, 28, 32, and 34 under 35 U.S.C. § 102(e) as being anticipated by Westerinen (US 2004/0088589 A1).²

¹ Appellant explicitly elects not to appeal the rejections of claims 11 – 13, 24 – 27, 30, and 31 (App. Br. 2). Appellant therefore waives arguments challenging the Examiner's rejections of these claims. See 37 C.F.R. § 41.37(c)(1)(vii); see also *Ex parte Ghuman*, 88 USPQ2d 1478 (BPAI 2008) (precedential). The Examiner maintains the rejection of these claims (Ans. 17 – 19, 21 – 24, and 24 – 26). Accordingly, we pro forma affirm the Examiner's rejections of these claims.

Appellant contends that the Examiner erred in rejecting claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Westerinen and Hsu (US 6,618,813 B1).³

ISSUES

1. Is Westerinen's hibernation state a suspended to memory state, as recited in claims 1, 8, 14, 21, 28, 32, and 34?

2. Does Westerinen disclose intervening and preserving a persistent copy of an operational state of an apparatus before completing a suspend process, as recited in claim 1?

3. Does Westerinen disclose transferring control to an input/output system (BIOS) of an apparatus, as recited in claim 4?

4. Does Westerinen disclose a basic I/O system (BIOS) to intervene and save a persistent copy of an operational state of a system, as recited in claim 14?

5. Does Westerinen disclose monitoring for re-application of alternating current (AC) to an apparatus while the apparatus is in a suspended to memory state maintained by a backup power source, as recited in claim 8?

² Appellant does not argue with specificity for separate patentability of claims 5 – 7, 9, 10, 15 – 20, 22, 23, 29, 33, and 35.

³ The Examiner fails to cite to Hsu in rejecting claim 3 (Ans. 15 – 17), even though claim 3 depends on claim 2 (Claims App'x 20) and the Examiner relies on Hsu in rejecting claim 2 (Ans. 14 – 15). Appellant does not contend that the Examiner's oversight constitutes reversible error, nor does Appellant otherwise argue with specificity for separate patentability of claim 3. As such, we hold the Examiner's oversight harmless.

6. Does Westerinen disclose a controller that causes a BIOS to initiate a resume process on re-application of AC to the system, as recited in claim 21?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellant's arguments (Appeal Brief and Reply Brief) that the Examiner has erred. Arguments that Appellant could have made in the Appeal Brief but did not raise until filing the Reply Brief are deemed untimely and therefore waived. See *In re Borden*, 93 USPQ2d 1473, 1473 – 74 (BPAI 2010) (informative).

We disagree with Appellant's conclusions. We adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to Appellant's Appeal Brief. We concur with the conclusions reached by the Examiner.

(1) Is *Westerinen's* hibernation state a suspended to memory state, as recited in claims 1, 8, 14, 21, 28, 32, and 34?

Claim 1 recites "initiating a suspend process to place the apparatus in a suspended to memory state, to be sustained by the supplied backup power" (Claims App'x 20). Claims 8, 14, 21, 28, 32, and 34 also recite a suspended to memory state. We do not agree with Appellant that "the hibernation state of *Westerinen* is not such a state" (Reply Br. 2). *Westerinen* discloses that the hibernation state is "a persistable off state in which the state data are persistently stored (e.g., in a non-volatile memory such as the hard drive)" (§ [0024]) (emphasis added). As such, this state in *Westerinen* is one in which the apparatus is suspended to memory. Furthermore, *Westerinen*

discloses that the data is persistently stored (i.e., the suspended to memory state is entered) “before the battery power is disconnected” (id.). As such, Westerinen discloses a suspended to memory state (where state data has been persistently stored) that is sustained (before) by a supplied backup power (battery power is disconnected).

Accordingly, with respect to this issue we sustain the Examiner’s rejection of claims 1, 8, 14, 21, 28, 32, and 34, and dependent claims 2 – 4, 6, 7, 9 – 13, 15 – 20, 22 – 27, 29 – 31, 33, and 35.

(2) Does Westerinen disclose intervening and preserving a persistent copy of an operational state of an apparatus before completing a suspend process, as recited in claim 1?

We do not agree with Appellant that Westerinen fails to disclose the claimed intervening and preserving before completing a suspend process (App. Br. 8). Westerinen’s suspend process, discussed above, is complete when the battery power can be disconnected. The battery power is not disconnected until after “the state data are persistently stored” (¶ [0024]). As such, Westerinen’s intervening and preserving of a persistent copy of an operational state of an apparatus takes place before completing a suspend process (i.e., before the battery power can be disconnected).

Accordingly, with respect to this issue we sustain the Examiner’s rejection of claim 1 and dependent claims 2 – 7.

(3) Does Westerinen disclose transferring control to an input/output system (BIOS) of an apparatus, as recited in claim 4?

We do not agree with Appellant that Westerinen’s disclosure is limited to a “BIOS accepting requests from the operating system and being programmed to be part of the mechanism to preserve state data” (App. Br. 10). Westerinen discloses a system BIOS that notifies the operating system

of a critical energy state, which is configured to enter the hibernation state in response to receiving the critical battery alarm signal (§ [0028]). Thus, the BIOS itself controls the apparatus (i.e., through its notification regarding the critical energy state), as recited in claim 4.

Accordingly, with respect to this issue we sustain the Examiner's rejection of claim 4.

(4) Does Westerinen disclose a basic I/O system (BIOS) to intervene and save a persistent copy of an operational state of a system, as recited in claim 14?

As discussed above, we do not agree with Appellant that Westerinen's disclosure is limited to a "BIOS accepting requests from the operating system and being programmed to be part of the mechanism to preserve state data" (App. Br. 14). Accordingly, with respect to this issue we sustain the Examiner's rejection of claim 14 and dependent claims 15 – 20.

(5) Does Westerinen disclose monitoring for re-application of alternating current (AC) to an apparatus while the apparatus is in a suspended to memory state maintained by a backup power source, as recited in claim 8?

We do not agree with Appellant that Westerinen fails to disclose the recitations of claim 8 (App. Br. 10 – 11). As discussed above, Westerinen discloses a suspended to memory state that is sustained by a backup power. Westerinen further discloses a voltage detection circuit that detects the presence of AC power (§ [0026]). This voltage detection circuit is part of a switch-over circuit, which connects a charger to a battery when a power supply receives adequate AC power input. As such, we agree with the Examiner that Westerinen's recharge circuit continuously (i.e., including when the apparatus is in a suspended to memory state) monitors for re-application of alternating current (Ans. 27).

Accordingly, with respect to this issue we sustain the Examiner's rejection of claim 8 and dependent claims 9 and 10.

(6) Does Westerinen disclose a controller that causes a BIOS to initiate a resume process on re-application of AC to the system, as recited in claim 21?

We do not agree with Appellant that Westerinen's disclosures are limited to causing "the operating system to initiate the resume process and only after re-application of AC power and a user pressing the on button twice" (App. Br. 14). Westerinen discloses that after AC power returns the power management controller waits for the AC power to be steady for a pre-selected time period (§ [0034]). This wait is part of a resume process because later the power management controller can awaken the system from its hibernation state (id.).

Accordingly, with respect to this issue we sustain the Examiner's rejection of claim 21 and dependent claims 22 and 23.

CONCLUSIONS OF LAW

The Examiner has demonstrated that claims 1 – 4 and 6 – 35 are unpatentable because:

1. Westerinen's hibernation state is a suspended to memory state, as recited in claims 1, 8, 14, 21, 28, 32, and 34;
2. Westerinen discloses intervening and preserving a persistent copy of an operational state of an apparatus before completing a suspend process, as recited in claim 1;
3. Westerinen discloses transferring control to an input/output system (BIOS) of an apparatus, as recited in claim 4;

4. Westerinen discloses a basic I/O system (BIOS) to intervene and save a persistent copy of an operational state of a system, as recited in claim 14;

5. Westerinen discloses monitoring for re-application of alternating current (AC) to an apparatus while the apparatus is in a suspended to memory state maintained by a backup power source, as recited in claim 8; and

6. Westerinen discloses a controller that causes a BIOS to initiate a resume process on re-application of AC to the system, as recited in claim 21.

DECISION

We affirm the Examiner's decisions rejecting claims 1 – 4 and 6 – 35.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

ELD